

CLAIMS AMENDMENTS

1 (Canceled).

2 (Currently Amended). A method according to claim 4 ~~13~~, wherein the sequence of monoscopic images is chosen from amongst the frames of a monoscopic movie passively acquired using a single video camera or from a collection of images taken with a video camera or a digital still camera.

3 (Currently Amended). A method according to claim 4 ~~13~~, wherein the images comprising the sequence of monoscopic images are analog images that are scanned to produce ~~the~~ digitized images.

4 (Original). A method according to claim 3, wherein the analog images can be images taken with a still or movie camera.

Claims 5 - 12 (Canceled).

13 (New). A method for converting a sequence of monoscopic images to a sequence of stereoscopic images, comprising the following steps:

- a) processing the original sequence of monoscopic images of a scene by use of a device that is capable of reading the individual images, digitizing the images if necessary, and storing the images in a memory unit;
- b) selecting from said sequence a subset of images of interest;
- c) computing the collection of affine transformations between the adjacent images in the subset;
- d) selecting one image of the sequence of the subset of images of a scene that will be one member of the first stereo pair of the sequence;
- e) searching amongst the remaining images in said subset for a second image, which can be transformed into a suitable stereo partner for said selected image, by determining the cascaded affine transformation to each of the successive images starting with the neighboring image to said selected image and applying the parallax creation until said second image is found;
- f) calculating a planar transformation by using said selected image, said second image, and the cascaded affine transformation between them;
- g) applying said planar transformation to said second image;
- h) storing said selected image and the transformed second image in the memory unit; and
- i) repeating steps (c) through (h) for the next and each of the remaining images of said selected subset.

14 (New). A method according to claim 13, wherein in steps (c), (e), and (f) the affine transformation is replaced by any other transform that is capable of estimating the relative position of the two cameras that produced the pair of images.

15 (New). A method according to claim 13, wherein in step (f) the planar transformation is replaced by any other transform that is capable of estimating the relative positions of the two cameras that produced the stereo pair of images.

16 (New). A method according to claim 13, wherein the parallax criterion is expressed as a number of pixels of horizontal translational motion.

17 (New). A method according to claim 13, wherein the parallax criterion is expressed in terms of high order elements of the transformation.

18 (New). A method according to claim 13, wherein the searching in step (e) is carried out amongst the neighboring images on both sides of the selected image.

19 (New). A method according to claim 13, wherein the searching in step (e) is limited to a maximum number of images on either side of the selected image.

20 (New). A method according to claim 13, wherein the searching in step (e) is carried out using a not-sequential search, which may have steps of variable length

on one or both sides of the selected image and the cascaded affine or other transformation may be determined using only some of the successive images starting with the neighboring image to said selected image.

21 (New). A series of stereoscopic pair of images that are produced according to the method of claim 13 from a sequence of monoscopic images of a scene.

22 (New). A stereoscopic movie produced from the series of stereoscopic pairs of images of claim 21.

23 (New). A stereoscopic movie according to claim 20 accompanied by a sound track, wherein said sound track is essentially identical to the sound track recorded with the sequence of monoscopic images from which said stereoscopic movie is produced.